

1. A packet switching apparatus comprising:
n (an integer of 3 or more) slots capable of housing
line interface cards to each of which an input line and an
output line are connected; and

each of the k line interface cards adds a bitmap to a multicast packet inputted from the input line and outputs the multicast packet to the packet switch;

the length of the bitmap is made variable depending on the value of k.

2. A packet switching apparatus according to claim 1, wherein each of the k line interface cards brings the length of bitmap to n bits when $k = n$, and makes the length of the bitmap smaller than n bits when $k < n$.

a management terminal connected to the control part,
wherein the value of k is inputted from the management
terminal.

a management terminal connected to the control part,
wherein the value of k is inputted from the management
terminal.

means for detecting that the line interface cards are housed in the slots.

8. A method of transmitting a multicast packet at a packet switching apparatus which comprises n (an integer of 3 or more) slots capable of housing line interface cards to each of which an input line and an output line are connected, and a packet switch, the method comprising the steps of:

in each of the plural interface cards housed in the plural slots, outputting a multicast packet added with the bitmap to the packet switch; and

9. A method of transmitting a multicast packet according to claim 8, wherein each of the line interface cards housed in the plural slots brings the length of the bitmap to n bits when the number of the housed interface

cards is equal to n , and in other cases, makes the length of the bitmap smaller than n bits.

10. A method of transmitting a multicast packet according to claim 8, wherein a management terminal is connected to the packet switching apparatus, and the number of the housed line interface cards is inputted from the management terminal.

11. A method of transmitting a multicast packet according to claim 9, wherein a management terminal is connected to the packet switching apparatus, and the number of the housed line interface cards is inputted from the management terminal.

12. A setup method of a packet switching apparatus which a management terminal is connected to, the packet switching apparatus comprising n (an integer of 3 or more) slots capable of housing line interface cards to each of which an input line and an output line are connected, the method comprising the steps of:

inputting the number of line interface cards housed in plural slots of the n slots from the management terminal;
and

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depending on the inputted number of line interface cards, in each of the plural line interface cards housed in the plural slots, controlling the length of a bitmap added to a multicast packet.

13. A setup method of a packet switching apparatus according to claim 12, wherein each of the plural interface cards housed in the plural slots performs control so that the length of the bitmap is n bits when the number of the housed line interface cards is equal to n , and in other cases, the length of the bitmap is smaller than n bits.

14. A setup method of a packet switching apparatus according to claim 12, comprising the steps of:

if a multicast packet inputted to the plural line interface cards housed in the plural slots is multicast to only specific plural line interface cards of the plural line interface cards housed in the plural slots, inputting information for identifying the specific plural line interface cards from the management terminal; and

depending on the inputted number of line interfaces and the information, in each of the plural line interface cards housed in the plural slots, controlling the length of a bitmap added to a multicast packet.

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15. A setup method of a packet switching apparatus according to claim 13, comprising the steps of:

if a multicast packet inputted to the plural line interface cards housed in the plural slots is multicast to only specific plural line interface cards of the plural line interface cards housed in the plural slots, inputting information for identifying the specific plural line interface cards from the management terminal; and

depending on the inputted number of line interfaces and the information, in each of the plural line interface cards housed in the plural slots, controlling the length of a bitmap added to a multicast packet.

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